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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/432,338	11/02/1999	KLAUS ZIMMERMANN	10191/1157	9914

26646 7590 05/21/2003

KENYON & KENYON
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EXAMINER

KEASEL, ERIC S

ART UNIT PAPER NUMBER

3754

DATE MAILED: 05/21/2003

23

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary	Application No.		Applicant(s)	
	09/432,338		ZIMMERMANN ET AL.	
	Examiner		Art Unit	
	Eric Keasel		3754	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 April 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 17 April 2003 has been entered.

Claim Rejections - 35 USC § 102

Claim Rejections - 35 USC § 103

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 1-7 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Lutz et al. (US Patent Number 6,017,017).

The claims are cryptic and the associated disclosure is little more than black boxes; however, the literal words of the claims can be given a broad, reasonable interpretation. For example, the first step in claim 1 “determining a duration of a time window such that a current flowing through the consumer during the time window does not exceed a threshold value” can be read as a threshold value being the limit of your power supply. Determining a duration such that the current does not exceed the threshold value could simply mean you don’t exhaust your power supply. This is an inherent property of any solenoid-actuated valve (assuming that it is functional). Alternatively, if the assumption is not considered inherent, then it would have been obvious to one having ordinary skill in the art at the time the invention was made to have ensured that the power supply was adequate so that solenoid-actuated valve is functional.

During the large time window established by the first step, the second step is merely a position sensor. When the valve moves from the closed to the opened position (or from opened

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to closed), the voltage switches from on to off (or off to on). This position sensor determines this switching instant, and the switching instant is within the time window set in the first step. So, in one of many possible broad reading of the claims, any solenoid with a position sensor reads on the claims. Similarly, it would appear that the other claims are anticipated (if the functionality of the solenoid-actuated valve is inherent) or obvious (if the functionality of the solenoid-actuated valve is not assumed to be inherent).

5. Claims 1-7 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Li (US Patent Number 5,942,892).

The claims are cryptic and the associated disclosure is little more than black boxes; however, the literal words of the claims can be given a broad, reasonable interpretation. For example, the first step in claim 1 “determining a duration of a time window such that a current flowing through the consumer during the time window does not exceed a threshold value” can be read as a threshold value being the limit of your power supply. Determining a duration such that the current does not exceed the threshold value could simply mean you don’t exhaust your power supply. This is an inherent property of any solenoid-actuated valve (assuming that it is functional). Alternatively, if the assumption is not considered inherent, then it would have been obvious to one having ordinary skill in the art at the time the invention was made to have ensured that the power supply was adequate so that solenoid-actuated valve is functional.

During the large time window established by the first step, the second step is merely a position sensor. When the valve moves from the closed to the opened position (or from opened to closed), the voltage switches from on to off (or off to on). This position sensor determines this

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switching instant, and the switching instant is within the time window set in the first step. So, in one of many possible broad reading of the claims, any solenoid with a position sensor reads on the claims. Similarly, it would appear that the other claims are anticipated (if the functionality of the solenoid-actuated valve is inherent) or obvious (if the functionality of the solenoid-actuated valve is not assumed to be inherent).

6. Claims 1-7 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Smith, Jr. et al. (US Patent Number 5,738,071).

The claims are cryptic and the associated disclosure is little more than black boxes; however, the literal words of the claims can be given a broad, reasonable interpretation. For example, the first step in claim 1 “determining a duration of a time window such that a current flowing through the consumer during the time window does not exceed a threshold value” can be read as a threshold value being the limit of your power supply. Determining a duration such that the current does not exceed the threshold value could simply mean you don’t exhaust your power supply. This is an inherent property of any solenoid-actuated valve (assuming that it is functional). Alternatively, if the assumption is not considered inherent, then it would have been obvious to one having ordinary skill in the art at the time the invention was made to have ensured that the power supply was adequate so that solenoid-actuated valve is functional.

During the large time window established by the first step, the second step is merely a position sensor. When the valve moves from the closed to the opened position (or from opened to closed), the voltage switches from on to off (or off to on). This position sensor determines this switching instant, and the switching instant is within the time window set in the first step. So, in

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one of many possible broad reading of the claims, any solenoid with a position sensor reads on the claims. Similarly, it would appear that the other claims are anticipated (if the functionality of the solenoid-actuated valve is inherent) or obvious (if the functionality of the solenoid-actuated valve is not assumed to be inherent).

7. Claims 1-7 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Moyers et al. (US Patent Number 5,583,434).

The claims are cryptic and the associated disclosure is little more than black boxes; however, the literal words of the claims can be given a broad, reasonable interpretation. For example, the first step in claim 1 “determining a duration of a time window such that a current flowing through the consumer during the time window does not exceed a threshold value” can be read as a threshold value being the limit of your power supply. Determining a duration such that the current does not exceed the threshold value could simply mean you don’t exhaust your power supply. This is an inherent property of any solenoid-actuated valve (assuming that it is functional). Alternatively, if the assumption is not considered inherent, then it would have been obvious to one having ordinary skill in the art at the time the invention was made to have ensured that the power supply was adequate so that solenoid-actuated valve is functional.

During the large time window established by the first step, the second step is merely a position sensor. When the valve moves from the closed to the opened position (or from opened to closed), the voltage switches from on to off (or off to on). This position sensor determines this switching instant, and the switching instant is within the time window set in the first step. So, in one of many possible broad reading of the claims, any solenoid with a position sensor reads on

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the claims. Similarly, it would appear that the other claims are anticipated (if the functionality of the solenoid-actuated valve is inherent) or obvious (if the functionality of the solenoid-actuated valve is not assumed to be inherent).

8. Claims 1-7 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Corso et al. (US Patent Number 5,320,123).

The claims are cryptic and the associated disclosure is little more than black boxes; however, the literal words of the claims can be given a broad, reasonable interpretation. For example, the first step in claim 1 “determining a duration of a time window such that a current flowing through the consumer during the time window does not exceed a threshold value” can be read as a threshold value being the limit of your power supply. Determining a duration such that the current does not exceed the threshold value could simply mean you don’t exhaust your power supply. This is an inherent property of any solenoid-actuated valve (assuming that it is functional). Alternatively, if the assumption is not considered inherent, then it would have been obvious to one having ordinary skill in the art at the time the invention was made to have ensured that the power supply was adequate so that solenoid-actuated valve is functional.

During the large time window established by the first step, the second step is merely a position sensor. When the valve moves from the closed to the opened position (or from opened to closed), the voltage switches from on to off (or off to on). This position sensor determines this switching instant, and the switching instant is within the time window set in the first step. So, in one of many possible broad reading of the claims, any solenoid with a position sensor reads on the claims. Similarly, it would appear that the other claims are anticipated (if the functionality of

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the solenoid-actuated valve is inherent) or obvious (if the functionality of the solenoid-actuated valve is not assumed to be inherent).

9. Claims 1-7 are rejected under 35 U.S.C. 102(b) as being anticipated by Rehlichler (US Patent Number 5,592,921).

Rehlichler discloses the method and the corresponding apparatus of activating a solenoid valve for controlling metering of fuel into an internal combustion engine. A time window is determined and the current is kept below a threshold level. The switching instant is determined by analyzing the variation over time of the current (see column 2, lines 5-10). The current is determined throughout the time window including the time “immediately before” the end of the time window. The duration of the time window varies in relation with the current such that the time window reduced when current exceeds the threshold value and is increased when the current is below the threshold value.

10. Claims 1-7 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Zimmermann (US Patent Number 5,257,014).

The claims are cryptic and the associated disclosure is little more than black boxes; however, the literal words of the claims can be given a broad, reasonable interpretation. For example, the first step in claim 1 “determining a duration of a time window such that a current flowing through the consumer during the time window does not exceed a threshold value” can be read as a threshold value being the limit of your power supply. Determining a duration such that the current does not exceed the threshold value could simply mean you don’t exhaust your power

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supply. This is an inherent property of any solenoid-actuated valve (assuming that it is functional). Alternatively, if the assumption is not considered inherent, then it would have been obvious to one having ordinary skill in the art at the time the invention was made to have ensured that the power supply was adequate so that solenoid-actuated valve is functional.

During the large time window established by the first step, the second step is merely a position sensor. When the valve moves from the closed to the opened position (or from opened to closed), the voltage switches from on to off (or off to on). This position sensor determines this switching instant, and the switching instant is within the time window set in the first step. So, in one of many possible broad reading of the claims, any solenoid with a position sensor reads on the claims. Similarly, it would appear that the other claims are anticipated (if the functionality of the solenoid-actuated valve is inherent) or obvious (if the functionality of the solenoid-actuated valve is not assumed to be inherent).

11. Claims 1-7 (as understood) are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Tauscher (US Patent Number 5,109,885).

The claims are cryptic and the associated disclosure is little more than black boxes; however, the literal words of the claims can be given a broad, reasonable interpretation. For example, the first step in claim 1 “determining a duration of a time window such that a current flowing through the consumer during the time window does not exceed a threshold value” can be read as a threshold value being the limit of your power supply. Determining a duration such that the current does not exceed the threshold value could simply mean you don’t exhaust your power supply. This is an inherent property of any solenoid-actuated valve (assuming that it is

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functional). Alternatively, if the assumption is not considered inherent, then it would have been obvious to one having ordinary skill in the art at the time the invention was made to have ensured that the power supply was adequate so that solenoid-actuated valve is functional.

During the large time window established by the first step, the second step is merely a position sensor. When the valve moves from the closed to the opened position (or from opened to closed), the voltage switches from on to off (or off to on). This position sensor determines this switching instant, and the switching instant is within the time window set in the first step. So, in one of many possible broad reading of the claims, any solenoid with a position sensor reads on the claims. Similarly, it would appear that the other claims are anticipated (if the functionality of the solenoid-actuated valve is inherent) or obvious (if the functionality of the solenoid-actuated valve is not assumed to be inherent).

Response to Arguments

12. Applicant's arguments filed 17 April 2003 have been fully considered but they are not persuasive with regard to the art rejections.

The claims are much broader than applicant argues. Applicant argues in four paragraphs numerous differences between the disclosed inventions. However, these limitations are not recited in the overly broad two-step process. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

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Conclusion

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Dressler et al. and Fischer et al. disclose similar current analysis systems.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric Keasel whose telephone number is (703) 308-6260. The examiner can normally be reached on Monday-Thursday.

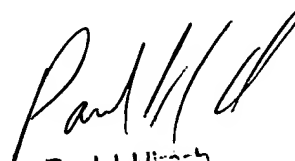
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gene Mancene can be reached on (703) 308-2696. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9302 for regular communications and (703) 872-9303 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0861.

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May 16, 2003


Paul J. Hirsch
Primary Examiner